



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/625,031	07/25/2000	Ikuko Umezawa	2927-0114P	6752

7590

06/23/2003

Birch Stewart Kolasch & Birch LLP
P O Box 747
Falls Church, VA 22040-0747

EXAMINER

PATTERSON, MARC A

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 06/23/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/625,031

Applicant(s)

UMEZAWA, IKUKO

Examiner

Marc A Patterson

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

WITHDRAWN REJECTIONS

1. The 35 U.S.C. 112 first paragraph rejection of Claims 1 – 5 and 35 U.S.C. 103(a) rejection of Claims 1 – 2 and 4 as being unpatentable over Kataoka et al. (U.S. Patent No. 5,533,282) in view of Wideman et al. (U.S. Patent No. 5,922,792) and Norton (U.S. Patent No. 4,559,724), of record on page 2 of the previous Action, and the finality of the previous rejection, are withdrawn.

NEW REJECTIONS

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claim 1 – 2 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regard to Claims 1 and 4, the term ‘including’ is indefinite as its meaning is unclear. For purposes of examination, the term will be assumed to mean ‘comprising.’ The use of symbols (h_1 , h_2 , c_1 , c_2) is indefinite, and is not consistent with U.S. practice, as it is unclear what the symbols correspond to.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 – 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kataoka et al. (U.S. Patent No. 5,533,282) in view of Wideman et al. (U.S. Patent No. 5,922,792), Norton (U.S. Patent No. 4,559,724) and Murray (U.S. Patent No. 3,977,096).

With regard to Claims 1 and 4, Kataoka et al disclose shoes having an outsole (the portion which contacts a surface; column 2, lines 56 – 65) comprising a spike plate forefoot portion comprising a spike plate (hard plate; column 3, lines 51 – 57); the spike plate and the attached spikes comprise synthetic resin (column 1, lines 12 – 22); the spikes comprise a disc shaped portion and a plurality of pins and a projecting portion having a ground contact surface (column 1, lines 59 – 67 and column 2, lines 1 – 4; Figure 2); the spike is removably mounted (detachably attached) on the outsole (column 1, lines 11 – 17); the height difference between the spikes and the projecting portion is 4 mm (column 5, lines 17 – 20). Kataoka et al fail to disclose spikes in which the synthetic resin is a rubber – molded material whose JIS – C hardness ranges from 35 to 95, and whose elongation at break is 280% or more, and which contains 30 wt% or more of acrylonitrile – butadiene copolymer, and the difference in JIS – C hardness between the ground – contact portion of the spike and the projected portion is in the range from 5 – 80.

Murray teaches that it is equivalent to provide for a spike plate for the forefoot or heel of a shoe (either or both of a sole portion and heel portion; column 2, lines 33 – 39) for the purpose of making a shoe which prevents slipping (column 2, lines 33 – 39).

Wideman et al. teach the use of a rubber composition (column 1, lines 24 – 34) for the making of a shoe sole (column 12, lines 3 – 26) which comprises acrylonitrile – butadiene copolymer (100%; column 3, lines 42 – 53); and has an elongation at break of 672% (which is greater than 280%; column 10, lines 25 – 49) for the purpose of using a rubber having good antifatigue properties (column 1, lines 5 – 9).

Norton teaches that it is known in the art to make the spikes (cleats) of a shoe sole from a synthetic resin having a lower hardness than the remainder of the sole (for spike and the remainder of the sole are made from the same polymer, but having different hardness; column 4, lines 23 – 31) for the purpose of enhancing shock absorbancy (column 4, lines 23 – 31).

One of ordinary skill in the art would therefore have recognized the desirability of providing for a spike plate for the heel, as well as the forefoot, of Kataoka et al, in order to prevent the wearer from slipping as taught by Murray, and acrylonitrile – butadiene copolymer having an elongation at break of 672% in Kataoka et al in order to use a rubber having good antifatigue properties as taught by Wideman et al., and to have provided for spikes having a different sole than the projected portion of the shoe in Kataoka et al in order to enhance shock absorbancy as taught by Norton.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a spike plate for the heel, as well as the forefoot, of Kataoka et al, in order to prevent the wearer from slipping as taught by Murray,

Art Unit: 1772

acrylonitrile – butadiene copolymer (100%; column 3, lines 42 – 53) having an elongation at break of 672% (which is greater than 280%; column 10, lines 25 – 49) in Kataoka et al in order to use a rubber having good antifatigue properties as taught by Wideman et al., and to have provided for spikes having a different sole than the projected portion of the shoe in Kataoka et al. in order to enhance shock absorbancy as taught by Norton.

Wideman et al do not teach a hardness of from 35 – 95, as measured by JIS – C. However, Wideman et al. teach a hardness of 50.5, as measured by sclerometer (Shore hardness; column 10, lines 25 – 48). Therefore, the hardness would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the hardness, since the hardness would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Wideman et al. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

Norton does not teach a hardness difference of from 5 – 80, as measured by JIS – C. However, Norton teaches a hardness difference of 10, as measured by sclerometer (Shore hardness; column 4, lines 23 – 31). Therefore, the hardness difference would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the hardness difference, since the hardness difference would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Norton. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

Art Unit: 1772

With regard to Claim 2, the polybutadiene taught by Wideman et al. contains 100% cis – 1,4 linkage (therefore greater than 70%; column 3, lines 42 – 53).

ANSWERS TO APPLICANT'S ANSWERS

6. Applicant's arguments, and amended claims, regarding the 35 U.S.C. 112 first paragraph rejection of Claims 1 – 2 and 4 and 35 U.S.C. 103(a) rejection of Claims 1 – 2 and 4 as being unpatentable over Kataoka et al. (U.S. Patent No. 5,533,282) in view of Wideman et al. (U.S. Patent No. 5,922,792) and Norton (U.S. Patent No. 4,559,724), of record on page 2 of the previous Action, have been considered and have been found to be persuasive. The rejections have therefore been withdrawn. The new 35 U.S.C. 112 second paragraph rejection of Claims 1 – 2 and 4, 35 U.S.C. 103(a) rejection of Claims 1 – 2 and 4 as being unpatentable over Kataoka et al. (U.S. Patent No. 5,533,282) in view of Wideman et al. (U.S. Patent No. 5,922,792) Norton (U.S. Patent No. 4,559,724) and Murray (U.S. Patent No. 3,977,096) above are directed to amended Claims 1 – 2 and 4.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Patterson, whose telephone number is (703) 305-3537. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Harold

Art Unit: 1772

Pyon, can be reached at (703) 308-4251. FAX communications should be sent to (703) 872-9310. FAXs received after 4 P.M. will not be processed until the following business day.

Marc A. Patterson, PhD.

Marc Patterson
Art Unit 1772

Harold Pyon
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772 6/13/03